## IN THE CLAIMS:

Please write the claims to read as follows:

1. (Original) A network device, comprising:

a first linecard receiving input computer network packets from a computer net-work, said line card translating said packets into segments;

a switching fabric receiving segments from said linecard, said switching fabric to route said segments to a desired output linecard, said switching fabric having at least one queue therein, said queue having a threshold such that in the event that a segment arrives at said queue and said queue is filled above said threshold, a bit of said segment is set as said segment is passed out of said queue, said bit being set "marking" said segment as that segment having passed through a queue filled above said lower threshold level;

a second line card receiving said segments from said switching fabric, said second linecard translating said segments into a computer network packet for transmission by said second linecard out through a port connected to an output computer network;

a circuit determining whether or not a particular segment of said segments re-ceived by said second linecard has said bit set indicating that said segment is marked, and in response to detecting a segment as being marked, discarding said output packet in ac-cordance with a random probability, and in response to detecting that no segment of said output packet is marked, transmitting said output packet onto said computer network.

2. (Original) The apparatus as in claim 1 wherein said circuit further comprises a hardware computer chip.

3. (Original) The apparatus as in claim 1 wherein said circuit further comprises an ASIC chip mounted on said output linecard.

1     4. (Original) The apparatus as in claim 1 wherein said circuit further comprises a

2 microprocessor.


1     5. (Original) The apparatus as in claim 1 wherein said circuit further comprises a

2 hardware chip operating with a microprocessor.


1     6. (Currently Amended) A network device, comprising:

2     a first linecard receiving input computer network packets from a computer net-

3 work, said line card translating said packets into segments;

4

5     a switching fabric receiving segments from said linecard, said switching fabric to

6 route said segments to a desired output linecard, said switching fabric having at least one

7 queue therein, said queue having a threshold such that in the event that a segment arrives

8 at said queue and said queue is filled above said threshold, a bit of said segment is set as

9 said segment is passed out of said queue, said bit being set "marking" said segment as

10 that segment having passed through a queue filled above said lower threshold level;

11

12     a second line card receiving said segments from said switching fabric, said second

13 linecard translating said segments into a computer network packet for transmission by

14 said second linecard out through a port connected to an output computer network;

15

16     a circuit determining whether or not a particular segment of said segments re-

17 ceived by said second linecard has said bit set indicating that said segment is marked, and

18 in response to detecting a segment as being marked, discarding said output packet in ac-

19 cordance with a random probability, and in response to detecting that no segment of said

20 output packet is marked, transmitting said output packet onto said computer network;

21

22     [The apparatus as in claim 1 wherein said circuit discarding said output packet in

23 accordance with a random probability further comprises:]

3

24

25 said circuit counting a total number of segments received by said output linecard;

26 said circuit counting a number of said segments received by said linecard which

27 are marked;

28

29 said circuit calculating a ratio R by dividing said number of marked segments by

30 said total number of segments;

31

32 said circuit calculating a random number, said random number having a value

33 between zero and a maximum value of said ratio R; and

34

35 said circuit causing said packet to be discarded in the event that said ratio R is

36 greater than said random number.

1 7. (Original)  The apparatus as in claim 1 wherein said circuit further comprises:

2 logic for detecting a priority class of at least a selected packet of said input com-

3 puter network packets, and in response to said priority class, selecting class specific val-

4 ues in calculating a probability for discarding an output packet corresponding to said se-

5 lected input packet.

1 8. (Original)  A method for operating a network device, comprising:

2 receiving computer network packets from an input computer network;

3 translating said packets into segments;

4 receiving said segments in a switching fabric, said switching fabric to route said

5 segments to a desired output linecard, said switching fabric having at least one queue

6 therein, said queue having a threshold such that in the event that a segment arrives at said

7 queue and said queue is filled above said threshold, a bit of said segment is set as said

8 segment is passed out of said queue, said bit being set "marking" said segment as that

9 segment having passed through a queue filled above said threshold level;

10    receiving said segment from said switching fabric by an output linecard, said output-

11    put linecard translating said segments into a computer network packet for transmission by

12    said output linecard out through a port connected to an output computer network;

13    determining whether or not a particular segment of said segments received by said

14    output linecard has said bit set indicating that said segment is marked;

15    discarding said output packet, in response to detecting a segment as being marked,

16    in accordance with a random probability, and in response to detecting that no segment of

17    said output packet is marked, transmitting said output packet onto said computer network.

1    9.  (Currently Amended)  A method for operating a network device, comprising:

2

3    receiving computer network packets from an input computer network;

4

5    translating said packets into segments;

6

7    receiving said segments in a switching fabric, said switching fabric to route said

8    segments to a desired output linecard, said switching fabric having at least one queue

9    therein, said queue having a threshold such that in the event that a segment arrives at said

10    queue and said queue is filled above said threshold, a bit of said segment is set as said

11    segment is passed out of said queue, said bit being set "marking" said segment as that

12    segment having passed through a queue filled above said threshold level;

13

14    receiving said segment from said switching fabric by an output linecard, said output-

15    put linecard translating said segments into a computer network packet for transmission by

16    said output linecard out through a port connected to an output computer network;

17

18    determining whether or not a particular segment of said segments received by said

19    output linecard has said bit set indicating that said segment is marked;

20

21    discarding said output packet, in response to detecting a segment as being marked,

22 in accordance with a random probability, and in response to detecting that no segment of

23 said output packet is marked, transmitting said output packet onto said computer net-

24 work;

25

26    [The method for operating a network device of claim 8, wherein said determining

27 step further comprises:]

28

29    counting a total number of segments received by said output linecard;

30

31    counting a number of said segments received by said linecard which are marked;

32

33    calculating a ratio R by dividing said number of marked segments by said total

34 number of segments, the value of ratio R having a maximum value;

35

36    calculating a random number, said random number having a value between zero

37 and said maximum value of ratio R; and

38

39    causing said packet to be discarded in the event that said ratio R is greater than

40 said random number.


1    10. (Original)  The method for operating a network device of claim 8 further

2 comprising:

3    detecting a priority class of at least a selected packet of said input computer net-

4 work packets;

5    selecting, in response to said priority class, class specific values in calculating a

6 probability for discarding an output packet corresponding to said selected input packet.

1    11. (Original)  A computer readable device containing instructions for performing

2    the method of claim 8.


1    12 (Original)  Electromagnetic signals propagating on a computer network, said

2    electromagnetic signals containing instructions for performing the method of claim 8.

7